

CLAIMS:

1. A cordless microscope comprising:
a stage for holding specimens to be viewed; and
5 a light source assembly for illuminating the stage, the light source assembly including -
a circuit board, and
a plurality of LEDs mounted on the circuit board for projecting light toward
the stage, wherein the light source assembly is removable and
10 replaceable.
2. The cordless microscope as set forth in claim 1, the light source assembly further including a first connector mounted on the circuit board, electrically connected with the LEDs, and configured for connecting to a battery for powering the LEDs.
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3. The cordless microscope as set forth in claim 1, wherein the light source assembly includes 4 LEDs.
4. The cordless microscope as set forth in claim 2, the light source assembly
20 further including a second connector mounted on the circuit board and configured for connecting to a switch so as to electrically connect the switch between the battery and the LEDs for switching the LEDs between on and off states.
5. The cordless microscope as set forth in claim 4, the light source assembly
25 further including a third connector configured for connecting to a battery recharger for recharging the battery.
6. The cordless microscope as set forth in claim 1, wherein the structure of the
LEDs produces a highly-focused angle of illumination so that most of the light from the
30 LEDs is projected upwardly toward the stage.

7. A light source assembly for use in a microscope, the light source assembly comprising:
- a reflective coated circuit board,
- a plurality of LEDs mounted on the circuit board for projecting light upwardly from
- the circuit board, wherein the structure of the LEDs produces a highly-focused angle of illumination so that most of the light from the LEDs is projected upwardly; and
- a first connector mounted on or coupled with the circuit board, electrically connected with the LEDs, and configured for connecting to a battery for
- powering the LEDs.
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8. The light source assembly as set forth in claim 7, further including a second connector mounted on or coupled with the circuit board and configured for connecting to a switch so as to electrically connect the switch between the battery and the LEDs for
- 15 switching the LEDs between on and off states.
9. The light source assembly as set forth in claim 7, wherein the circuit board is circular in shape.
- 20 10. The light source assembly as set forth in claim 7, wherein 4 LEDs are mounted on the circuit board.
11. The light source assembly as set forth in claim 8, further including a third connector configured for connecting to a battery recharger for recharging the battery.
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12. A light source assembly for use in a microscope, the light source assembly comprising:
- 5 a circuit board,
- a plurality of LEDs mounted on the circuit board for projecting light upwardly from the circuit board, wherein the structure of the LEDs produces a highly-focused angle of illumination so that most of the light from the LEDs is projected upwardly; and
- 10 a first connector mounted on or coupled with the circuit board, electrically connected with the LEDs, and configured for connecting to a battery for powering the LEDs.
13. The light source assembly as set forth in claim 12, further including a second connector mounted on or coupled with the circuit board and configured for connecting to a switch so as to electrically connect the switch between the battery and the LEDs for switching the LEDs between on and off states.
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14. The light source assembly as set forth in claim 12, wherein the circuit board is circular in shape.
- 20 15. The light source assembly as set forth in claim 12, wherein 4 LEDs are mounted on the circuit board.
16. The light source assembly as set forth in claim 12, wherein the circuit board is coated with a reflective material to reflect light emitted from the LEDs.
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17. The light source assembly as set forth in claim 13, further including a third connector configured for connecting to a battery recharger for recharging the battery.

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